THE ASTROPHYSICAL JOURNAL CONTENTS OF VOLUME 624, PART 1

2005 MAY 1, NUMBER 1

	Page
THE RELATION BETWEEN THE TWO-POINT AND THREE-POINT CORRELATION FUNCTIONS IN THE NONLINEAR GRAVITATIONAL CLUSTERING REGIME Hiroko Koyama & Taihei Yano	1
PECULIAR VELOCITY AND DEABERRATION OF THE SKY D. Menzies & G. J. Mathews	7
DEGREE ANGULAR SCALE INTERFEROMETER 3 YEAR COSMIC MICROWAVE BACKGROUND POLARIZATION RESULTS E. M. Leitch, J. M. Kovac, N. W. Halverson, J. E. Carlstrom, C. Pryke, & M. W. E. Smith	10
SEARCH FOR COSMIC STRINGS IN COSMIC MICROWAVE BACKGROUND ANISOTROPIES E. Jeong & G. F. Smoot	21
VELOCITY EFFECTS ON THE DEFLECTION OF LIGHT BY GRAVITATIONAL MICROLENSES David Heyrorský	28
EFFECTS OF ELLIPTICITY AND SHEAR ON GRAVITATIONAL LENS STATISTICS Dragan Huterer, Charles R. Keeton, & Chung-Pei Ma	34
REDUCED CONVERGENCE AND THE LOCAL SMOOTHNESS PARAMETER: BRIDGING TWO DIFFERENT DESCRIPTIONS OF WEAK-LENSING AMPLIFICATION Yun Wang, Jason Tenbange, & Bobby Fleshman	46
COSMIC HOMOGENEITY DEMONSTRATED WITH LUMINOUS RED GALAXIES David W. Hogy, Daniel J. Eisenstein, Michael R. Blanton, Neta A. Bahcall, J. Brinkmann, James E. Gunn, & Donald P. Schneider	54
SHEAR-SELECTED CLUSTER COSMOLOGY: TOMOGRAPHY AND OPTIMAL FILTERING © Joseph F. Hennawi & David N. Speryel	59
DEEP VERY LARGE TELESCOPE V -BAND IMAGING OF THE FIELD OF A $z=10$ CANDIDATE GALAXY: BELOW THE LYMAN LIMIT? M. D. Lehnert, N. M. Förster Schreiber, & M. N. Bremer	80
ON DETECTING THE X-RAY SILHOUETTE OF A DAMPED Lyα SYSTEM © Mark Dijkstra, Zoltán Haiman, & Caleb Scharf	85
SPORADICALLY TORQUED ACCRETION DISKS AROUND BLACK HOLES David Garofalo & Christopher S. Reynolds	94
X-RAY LUMINOSITY AND ABSORPTION COLUMN FLUCTUATIONS IN THE H ₂ O MASER GALAXY NGC 4258 FROM WEEKS TO YEARS © Antonella Fruscione, Lincoln J. Greenhill, Alexei V. Filippenko, James M. Moran, James R. Herrnstein, & Elizabeth Galle	103
MEASURING EXTINCTION CURVES OF LENSING GALAXIES Christina McGough, Geoffrey C. Clayton, Karl D. Gordon, & Michael J. Wolff	118
C1 1205+44: A FOSSIL GROUP AT $z=0.59$ © M. P. Ulmer, C. Adami, G. Covone, F. Durret, G. B. Lima Neto, K. Sabirli, B. Holden, R. G. Kron, & A. K. Romer	124
THE PHOENIX DEEP SURVEY: SPECTROSCOPIC CATALOG © J. Afonso, A. Geonjakakis, C. Almeida, A. M. Hopkins, L. E. Cram, B. Mohasher, & M. Sullivan	135
NUCLEAR ACCRETION IN GALAXIES OF THE LOCAL UNIVERSE: CLUES FROM CHANDRA OBSERVATIONS S. Pellagrini	155
MID-INFRARED AND VISIBLE PHOTOMETRY OF GALAXIES: ANOMALOUSLY LOW POLYCYCLIC AROMATIC HYDROCARBON EMISSION FROM LOW-LUMINOSITY GALAXIES David W. Hogy, Christy A. Tremonti, Michael R. Blanton, Douglas P. Finkbeiner, Nikhil Padmanabhan, Alejandro D. Quintero, David J. Schlegel, & Nicholas Wherry	162
MICROLENSING SURVEYS OF M31 IN THE WIDE-FIELD IMAGING ERA ®	168

	1 uge
QUASI-LINEAR DRIFT OF COSMIC RAYS IN WEAK TURBULENT ELECTROMAGNETIC FIELDS Olaf Stawicki	178
PROBING MULTIPLE SIGHT LINES THROUGH THE SN 1006 REMNANT BY ULTRAVIOLET ABSORPTION SPECTROSCOPY © P. Frank Winkler, Knox S. Long, Andrew J. S. Hamilton, & Robert A. Fesen	189
THERMAL X-RAY EMISSION FROM SHOCKED EJECTA IN TYPE Ia SUPERNOVA REMNANTS. II. PARAMETERS AFFECTING THE SPECTRUM © Carles Badenes, Kazimierz J. Borkowski, & Eduardo Bravo	198
RADIO-WAVE PROPAGATION IN THE NON-GAUSSIAN INTERSTELLAR MEDIUM Stanislav Boldyrev & Carl R. Gwinn	213
ULTRAVIOLET RADIATION INSIDE INTERSTELLAR GRAIN AGGREGATES. I. THE DENSITY OF RADIATION Cesare Cecchi-Pestellini, Rosalba Saija, Maria Antonia Iatì, Arianna Giusto, Ferdinando Bonghese, Paolo Denti, & Santi Aiello	223
PUSHING THE ENVELOPE: THE IMPACT OF AN OUTFLOW AT THE EARLIEST STAGES OF STAR FORMATION Héctor G. Arce & Anneila I. Sangent	232
PROPER MOTION OF THE IRRADIATED JET HH 399 IN THE TRIFID NEBULA © F. Yusef-Zadeh, J. Biretta, & M. Wardle	246
DENSITY AND TEMPERATURE STRUCTURE OF TMC-1C FROM 450 AND 850 MICRON MAPS © S. Schnee & A. Goodman	254
THE EFFECTS OF PHOTON BUBBLE INSTABILITY IN RADIATION-DOMINATED ACCRETION DISKS © N. J. Turner, O. M. Blues, A. Socrates, M. C. Beyelman, & S. W. Davis	267
ACCURATE NUMERICAL POTENTIAL AND FIELD IN RAZOR-THIN, AXISYMMETRIC DISKS © Jean-Marc Huré & Arnaud Pierens	289
MULTIWAVELENGTH OBSERVATIONS OF THE 2002 OUTBURST OF GX 339—4: TWO PATTERNS OF X-RAY – OPTICAL/NEAR-INFRARED BEHAVIOR Jeroen Homan, Michelle Buxton, Sera Markoff, Charles D. Bailyn, Elisa Nespoli, & Tomaso Belloni	295
X-RAY COUNTERPARTS OF RUNAWAY STARS E. J. A. Meurs, G. Fennell, & L. Norci	307
FUSE OBSERVATIONS OF DB WHITE DWARFS N. Petitclerc, F. Wesemael, J. W. Kruk, P. Chayer, & M. Billères	317
CO J = 2–1 AND 4–3 OBSERVATIONS OF PROTO-PLANETARY NEBULAE: TIME-VARIABLE MASS LOSS Bruce J . Hrivnak & John H. Bieging	331
MULTIWAVELENGTH DIFFRACTION-LIMITED IMAGING OF THE EVOLVED CARBON STAR IRC +10216. II. P. G. Tuthill, J. D. Monnier, & W. C. Danchi	352
PROPERTIES OF THE Hα-EMITTING CIRCUMSTELLAR REGIONS OF Be STARS Christopher Tycner, John B. Lester, Arsen R. Hajian, J. T. Armstrong, J. A. Benson, G. C. Gilbreath, D. J. Hutter, T. A. Pauls, & N. M. White	359
A TRANSITING EXTRASOLAR GIANT PLANET AROUND THE STAR OGLE-TR-10 © Maciej Konacki, Guillermo Torres, Dimitar D. Sasselov, & Saurabh Jha	372
STAGNATION FLOW IN THIN STREAMER BOUNDARIES Steven Nerney & Steven T. Suess	378
ALFVÉN WAVES AND SHOCK WAVE FORMATION AT AN X-POINT MAGNETIC FIELD CONFIGURATION Simone Landi, Marco Velli, & Gionjio Einaudi	392
RELEASE OF HELIUM FROM CLOSED-FIELD REGIONS OF THE SUN Eirik Endeve, Øystein Lie-Svendsen, Vigyo H. Hansteen, & Egil Leer	402
NEW GEOEFFECTIVE PARAMETERS OF VERY FAST HALO CORONAL MASS EJECTIONS YJ. Moon, KS. Cho, M. Dryer, YH. Kim, Su-chan Bony, Jonychul Chae, & Y. D. Park	414
IN SEARCH OF THE SOLAR CYCLE VARIATIONS OF p-MODE FREQUENCIES GENERATED BY PERTURBATIONS IN THE SOLAR INTERIOR Dean-Yi Chou & Alexander Serebryanskiy	420
Fe xI EMISSION LINES IN A HIGH-RESOLUTION EXTREME-ULTRAVIOLET ACTIVE REGION SPECTRUM OBTAINED BY THE SOLAR EXTREME ULTRAVIOLET RESEARCH TELESCOPE AND SPECTROGRAPH F. P. Keenan, K. M. Agyarwal, R. S. I. Ryans, R. O. Milliyan, D. S. Bloomfield, J. W. Brosius, J. M. Davila, & R. J. Thomas	428
INVESTIGATING THE MECHANISM FOR THE FORMATION OF NITROUS OXIDE $[N_2O(X^{-1}\Sigma^+)]$ IN EXTRATERRESTRIAL ICES Corey S. Jamieson, Chris J. Bennett, Alexander M. Mebel, & Ralf I. Kaiser	436
A ROTATIONAL-LEVEL HYDROGEN PHYSICAL CHEMISTRY MODEL FOR GENERAL ASTROPHYSICAL APPLICATION J. T. Hallett, D. E. Shemansky, & X. Liu	448
INSTRUCTIONS TO ALTHORS	

2005 MAY 10, NUMBER 2

Page

A MAP OF THE UNIVERSE J. Richard Gott III, Mario Jurić, David Schlegel, Fiona Hoyle, Michael Vogeley, Max Teymark, Neta Bahcall, & Jon Brinkmann	463
FORMATION OF FIRST STARS TRIGGERED BY COLLISIONS AND SHOCK WAVES: PROSPECT FOR HIGH STAR FORMATION EFFICIENCY AND HIGH IONIZING PHOTON ESCAPE FRACTION ® Renyue Cen	485
THE IMPACT OF SMALL-SCALE STRUCTURE ON COSMOLOGICAL IONIZATION FRONTS AND REIONIZATION © Ilian T. Iliev, Evan Scannapieco, & Paul R. Shapiro	491
THE PHYSICS OF GALAXY CLUSTERING. I. A MODEL FOR SUBHALO POPULATIONS Andrew R. Zentner, Andreas A. Berlind, James S. Bullock, Andrey V. Kravtsov, & Risa H. Wechsler	505
THE NUMBER AND OBSERVABILITY OF POPULATION III SUPERNOVAE AT HIGH REDSHIFTS Simone M. Weinmann & Simon J. Lilly	526
REDDENING, ABSORPTION, AND DECLINE RATE CORRECTIONS FOR A COMPLETE SAMPLE OF TYPE Ia SUPERNOVAE LEADING TO A FULLY CORRECTED HUBBLE DIAGRAM TO $v < 30,000 \mathrm{km \ s^{-1}}$ B. Reindl, G. A. Tammann, A. Sandage, & A. Saha	532
THE LOW-z INTERGALACTIC MEDIUM. I. O VI BARYON CENSUS Charles W. Danforth & J. Michael Shull	555
METALLICITY AND H I COLUMN DENSITY PROPERTIES OF DAMPED Ly α SYSTEMS \oplus J. L. Hou, C. G. Shu, S. Y. Shen, R. X. Chang, W. P. Chen, & C. Q. Fu	561
SPECTROSCOPIC PROPERTIES OF VOID GALAXIES IN THE SLOAN DIGITAL SKY SURVEY © Randall R. Rojas, Michael S. Vogeley, Fiona Hoyle, & Jon Brinkmann	571
MAGNETOHYDRODYNAMIC SIMULATIONS OF RELIC RADIO BUBBLES IN CLUSTERS ® T. W. Jones & D. S. De Young	586
THE EVOLUTION OF STRUCTURE IN X-RAY CLUSTERS OF GALAXIES ® Tesla E. Jeltema, Claude R. Canizares, Mark W. Bautz, & David A. Buote	606
COMOVING SPACE DENSITY OF X-RAY – SELECTED ACTIVE GALACTIC NUCLEI J. D. Silverman, P. J. Green, W. A. Barkhouse, R. A. Cameron, C. Foltz, B. T. Jannuzi, DW. Kim, M. Kim, A. Mossman, H. Tananbaum, B. J. Wilkes, M. G. Smith, R. C. Smith, & P. S. Smith	630
A SURVEY OF UNIDENTIFIED EGRET SOURCES AT VERY HIGH ENERGIES S. J. Fegan, H. M. Badran, I. H. Bond, P. J. Boyle, S. M. Bradbury, J. H. Buckley, D. A. Carter-Lewis, M. Catanese, O. Celik, W. Cui, M. Daniel, M. D'Yali, I. de la Calle Perez, C. Duke, A. Falcone, D. J. Fegan, J. P. Finley, L. F. Fortson, J. A. Gaidos, S. Gammell, K. Gibbs, G. H. Gillanders, J. Grube, J. Hall, T. A. Hall, D. Hanna, A. M. Hillas, J. Holder, D. Horan, A. Jarvis, M. Jordan, G. E. Kenny, M. Kertzman, D. Kieda, J. Kildea, J. Knapp, K. Kosack, H. Krawczynski, F. Krennrich, M. J. Lang, S. Le Bohec, R. W. Lessard, E. Linton, J. Lloyd-Evans, A. Milovanovic, J. McEnery, P. Moriarty, R. Mukherjee, D. Muller, T. Nogai, S. Nolan, R. A. Ong, R. Pallassini, D. Petry, B. Power-Mooney, J. Quinn, M. Quinn, K. Ragan, P. Rebillot, P. T. Reynolds, H. J. Rose, M. Schroedter, G. H. Sembroski, S. P. Swordy, A. Syson, V. V. Vassiliev, S. P. Wakely, G. Walker, T. C. Weekes, & J. Zweerink	638
ULTRAVIOLET HUBBLE SPACE TELESCOPE OBSERVATIONS OF THE JET IN M87 Christopher Z. Waters & Stephen E. Zepf	656
METAL ABUNDANCES OF KISS GALAXIES. IV. GALAXIAN LUMINOSITY-METALLICITY RELATIONS IN THE OPTICAL AND NEAR-INFRARED John J. Salzer, Janice C. Lee, Jason Melbourne, Joannah L. Hinz, Almudena Alonso-Herrero, & Anna Jangren	661
A CCD PHOTOMETRIC AND MORPHOLOGICAL STUDY OF THE EXTENDED HALO AND FILAMENTS OF ESO 383-45: A GALAXY UNDERGOING RAM PRESSURE STRIPPING, OR A TIDAL MERGER REMNANT? S. N. Kemp, Educardo de la Fuente, A. Franco-Balderas, & J. Meaburn	680
PROPELLER ORBITS IN BARRED GALAXY MODELS David E. Kaufmann & Panos A. Patsis	693
THE KINEMATICS OF THICK DISKS IN EXTERNAL GALAXIES Peter Yoachim & Julianne J. Dalcanton	701
THE NATURE OF NEARBY COUNTERPARTS TO INTERMEDIATE-REDSHIFT LUMINOUS COMPACT BLUE GALAXIES. II. CO OBSERVATIONS C. A. Garland, J. P. Williams, D. J. Pisano, R. Guzmán, F. J. Castander, & J. Brinkmann	714
MODELING STAR FORMATION IN DWARF SPHEROIDAL GALAXIES: A CASE FOR EXTENDED DARK MATTER HALOS Senjey Mashchenko, H. M. P. Couchman, & Alison Sills	726
STELLAR BOW SHOCKS IN THE NORTHERN ARM OF THE GALACTIC CENTER: MORE MEMBERS AND KINEMATICS OF THE MASSIVE STAR POPULATION A. Tanner, A. M. Ghez, M. R. Morris, & J. C. Christou	742
X-RAY ABSORPTION LINE SPECTROSCOPY OF THE GALACTIC HOT INTERSTELLAR MEDIUM **STREET*: The Galactic Hot Interstellar Medium ** Yangsen Yao & Q. Daniel Wang**	751

PARTICLE ACCELERATION AT SHOCKS MOVING THROUGH AN IRREGULAR MAGNETIC FIELD	Page 765
Joe Giacalone	703
THE MILLENNIUM ARECIBO 21 CENTIMETER ABSORPTION-LINE SURVEY. IV. STATISTICS OF MAGNETIC FIELD, COLUMN DENSITY, AND TURBULENCE Carl Heiles & T. H. Troland $_{\nu}$	773
MOLECULAR HYDROGEN IN STAR-FORMING REGIONS: IMPLEMENTATION OF ITS MICROPHYSICS IN CLOUDY G. Shaw, G. J. Ferland, N. P. Abel, P. C. Stancil, & P. A. M. van Hoof	794
TRIGGERED STAR FORMATION IN THE ORION BRIGHT-RIMMED CLOUDS Hsu-Tai Lee, W. P. Chen, Zhi-Wei Zhang, & Jing-Yao Hu	808
AN EXTENDED SEARCH FOR CIRCULARLY POLARIZED INFRARED RADIATION FROM THE OMC-1 REGION OF ORION ®	821
M. Buschermöhle, D. C. B. Whittet, A. Chrysostomou, J. H. Hough, P. W. Lucas, A. J. Adamson, B. A. Whitney, & M. J. Wolff	827
RELATIVE EVOLUTIONARY TIMESCALE OF HOT MOLECULAR CORES WITH RESPECT TO ULTRACOMPACT H 11 REGIONS R. S. Furuya, R. Cesaroni, S. Takahashi, M. Momose, L. Testi, H. Shinnaga, & C. Codella	627
THE NEAR-INFRARED SIZE-LUMINOSITY RELATIONS FOR HERBIG Ae/Be DISKS © J. D. Monnier, R. Millan-Gabet, R. Billmeier, R. L. Akeson, D. Wallace, JP. Benyer, N. Calvet, P. D'Alessio, W. C. Danchi, L. Hartmann, L. A. Hillenbrand, M. Kuchner, J. Rajagopal, W. A. Traub, P. G. Tuthill, A. Boden, A. Booth, M. Colavita, J. Gathright, M. Hrynevych, D. Le Mignant, R. Ligon, C. Neyman, M. Swain, R. Thompson, G. Vasisht, P. Wizinowich, C. Beichman, J. Beletic, M. Creech-Eakman, C. Koresko, A. Sangent, M. Shao, & G. van Belle	832
OUTFLOW INTERACTION IN THE LATE STAGES OF STAR FORMATION Chin-Fei Lee & Paul T. P. Ho	841
A FLASH IN THE DARK: UVES VERY LARGE TELESCOPE HIGH-RESOLUTION SPECTROSCOPY OF GAMMA-RAY BURST AFTERGLOWS © F. Fiore, V. D'Elia, D. Lazzati, R. Perna, L. Sbordone, G. Stratta, E. J. A. Meurs, P. Ward, L. A. Antonelli, G. Chincarini, S. Covino, A. Di Paola, A. Fontana, G. Ghisellini, G. Israel, F. Frontera, G. Marconi, L. Stella, M. Vietri, & F. Zerbi	853
HOW SPECIAL ARE DARK GAMMA-RAY BURSTS: A DIAGNOSTIC TOOL ® Evert Rol, Ralph A. M. J. Wijers, Chryssa Kouveliotou, Lex Kaper, & Yuki Kaneko	868
GRB 020410: A GAMMA-RAY BURST AFTERGLOW DISCOVERED BY ITS SUPERNOVA LIGHT Andrew Levan, Peter Nugent, Andrew Fruchter, Ingunn Burud, David Branch, James Rhoads, Alberto Castro-Tirado, Javier Gorosabel, José Maria Castro Cerón, Stephen E. Thorsett, Chryssa Kouveliotou, Sergey Golenetskii, Johan Fynbo, Peter Garnavich, Stephen Holland, Jens Hjorth, Palle Møller, Elena Pian, Nial Tanvir, Mihail Ulanov, Ralph Wijers, & Stan Woosley	880
DETECTABILITY OF GAMMA-RAY BURST IRON LINES BY SWIFT, CHANDRA, AND XMM-NEWTON © L. J. Gou, P. Mészáros, & T. R. Kallman	889
ON THE LIGHT CURVE AND SPECTRUM OF SN 2003dh SEPARATED FROM THE OPTICAL AFTERGLOW OF GRB 030329 J. Deng, N. Tominaga, P. A. Mazzali, K. Maeda, & K. Nomoto	898
GEODETIC PRECESSION IN PSR J1141–6545 A. W. Hotan, M. Bailes, & S. M. Ord	906
NEW ELEMENTAL ABUNDANCES FOR V1974 CYGN1 K. M. Valandingham, G. J. Schwarz, S. N. Shore, S. Starrfield, & R. M. Wagner	914
MV LYRAE IN LOW, INTERMEDIATE, AND HIGH STATES © Albert P. Linnell, Paula Szkody, Boris Gänsicke, Knox S. Long, Edward M. Sion, D. W. Hoard, & Ivan Hubeny	923
ARBITRARILY DEGENERATE HELIUM WHITE DWARFS AS DONORS IN AM CANUM VENATICORUM BINARIES Christopher J. Deloye, Lars Bildsten, & Gijs Nelemans	934
ABSOLUTE PARAMETERS FOR EIGHT ECLIPSING BINARIES IN THE LARGE MAGELLANIC CLOUD: THE MASS-LUMINOSITY RELATION Jonge Federico González, Pablo Ostrov, Nidia Morrell, & Dante Minniti	946
SPECTROPOLARIMETRY AND RADIATIVE TRANSFER MODELING OF THREE PROTO-PLANETARY NEBULAE Benjamin Darwin Oppenheimer, John H. Bieging, Gary D. Schmidt, Karl D. Gordon, Karl A. Misselt, & Paul S. Smith	957
THE BINARITY OF η CARINAE REVEALED FROM PHOTOIONIZATION MODELING OF THE SPECTRAL VARIABILITY OF THE WEIGELT BLOBS B AND D E. Verner, F. Bruhweiler, & T. Gull	973
INFRARED SPECTROSCOPY OF U EQUULEI'S WARM CIRCUMSTELLAR GAS T. R. Geballe, C. Barnbaum, Keith S. Noll, & M. Morris	983
SPECTROSCOPIC CONSTANTS, ABUNDANCES, AND OPACITIES OF THE TiH MOLECULE A. Burrows, M. Dulick, C. W. Bauschlicher, Jr., P. F. Bernath, R. S. Ram, C. M. Sharp, & J. A. Milsom	988
POTENTIAL VORTICITY EVOLUTION OF A PROTOPLANETARY DISK WITH AN EMBEDDED PROTOPLANET Hui Li, Shengtai Li, Josef Koller, Burton B. Wendroff, Richard Liska, Chris M. Orban, Edison P. T. Liang, & Douglas N. C. Lin	1003
SINGLE-VISIT PHOTOMETRIC AND OBSCURATIONAL COMPLETENESS Robert A. Brown	1010

vii

1121

Page LINE FORMATION THEORY FOR THE MULTITERM ATOM WITH HYPERFINE STRUCTURE IN A MAGNETIC FIELD 1025 R. Casini & R. Manso Sainz THE COMPTON-GETTING EFFECT OF ENERGETIC PARTICLES WITH AN ANISOTROPIC PITCH-ANGLE DISTRIBUTION: 1038 AN APPLICATION TO VOYAGER 1 RESULTS AT ~85 AU Ming Zhang EFFECT OF A CONVERGING FLOW AT THE STREAMER CUSP ON THE GENESIS OF THE SLOW SOLAR WIND 1049 Giovanni Lapenta & D. A. Knoll CORONAL HEATING AT SEPARATORS AND SEPARATRICES 1057 E. R. Priest, D. W. Longcope, & J. Heyvaerts MAGNETIC HELICITY INJECTION AND SIGMOIDAL CORONAL LOOPS 1072 Tetsuya T. Yamamoto, K. Kusano, T. Maeshiro, T. Yokoyama, & T. Sakurai CATASTROPHIC COOLING OF IMPULSIVELY HEATED CORONAL LOOPS 1080 César A. Mendoza-Briceño, Leonardo Di G. Sigalotti, & Robert Erdélyi SEARCH FOR ACTIVITY IN 3200 PHAETHON 1093 Henry H. Hsieh & David Jewitt A COMBINED EXPERIMENTAL AND COMPUTATIONAL INVESTIGATION ON THE SYNTHESIS OF ACETALDEHYDE 1097 [CH3CHO(X 1A')] IN INTERSTELLAR ICES Chris J. Bennett, Corey S. Jamieson, Yoshihiro Osamura, & Ralf I. Kaiser FOURIER TRANSFORM EMISSION SPECTRA OF THE (000)-(000) BAND OF THE 24051.6 BAND OF C1 1116 A. Tanabashi, T. Hirao, T. Amano, & P. F. Bernath FORMATION OF SO, SO+, AND S_2 BY RADIATIVE ASSOCIATION

C. M. Andreazza & E. P. Marinho



